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PCT/US98/19199

#### WO 99/13893-

#### SEQUENCE LISTING

# (1) GENERAL INFORMATION:

- (I) APPLICANT: Nielsen, Peter E. et al.
- (ii) TITLE OF INVENTION: Peptide Nucleic Acids Having
  Antibacterial Activity
  - (iii) NUMBER OF SEQUENCES: 20
  - (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz
- 10 & Norris LLP
  - (B) STREET: One Liberty Place 46th Floor
  - (C) CITY: Philadelphia
  - (D) STATE: PA
  - (E) COUNTRY: U.S.A.
- 15 (F) ZIP: 19103
  - (v) COMPUTER READABLE FORM:
    - (A) MEDIUM TYPE: 3.5 inch disk, 1.44 Mb
    - (B) COMPUTER: IBM PC compatible
    - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- 20 (D) SOFTWARE: WordPerfect 6.1
  - (vi) CURRENT APPLICATION DATA:
    - (A) APPLICATION NUMBER: N/A
    - (B) FILING DATE: 16 September 1998
    - (C) CLASSIFICATION: N/A
- 25 (vii) PRIOR APPLICATION DATA:
  - (A) APPLICATION NUMBER: 08/932,140
  - (B) FILING DATE: 16 September 1997
  - (viii) ATTORNEY/AGENT INFORMATION:
    - (A) NAME: John W. Caldwell

	(B) REGISTRATION NUMBER: 28,937	
•	(C) REFERENCE/DOCKET NUMBER: ISIS-3267	
	(ix) TELECOMMUNICATION INFORMATION:	
	(A) TELEPHONE: 215-568-3100	
5	(B) TELEFAX: 215-568-3439	
	(2) INFORMATION FOR SEQ ID NO: 1:	
	(I) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 14 bases	
	(B) TYPE: nucleic acid	
10	(C) STRANDEDNESS: single	
	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:	
	TGACCATGAT TACG	14
	(2) INFORMATION FOR SEQ ID NO: 2:	
15	(I) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 17 bases	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: single	
	(D) TOPOLOGY: linear	
20	f(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:	
	TACGTGTTC CTGTGTG	17
	(2) INFORMATION FOR SEQ ID NO:3:	
	(I) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 17 bases	
25	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: single	
	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:	

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17

	(2) INFORMATION FOR SEQ ID NO: 4:
	(I) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 17 bases
5	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: single
	(D) TOPOLOGY: linear
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4
	ATTGTCTTCC TTTTTCA
10	(2) INFORMATION FOR SEQ ID NO: 5:
	(I) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 15 bases
	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: single
15	(D) TOPOLOGY: linear
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
	(B) LOCATION: 1
	(D) OTHER INFORMATION: N-acetyl(2-
20	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
	(B) LOCATION: 2
	(D) OTHER INFORMATION: N-acetyl(2-
25	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
	(B) LOCATION: 3

(A) NAME/KEY: Modified-site

(D) OTHER INFORMATION: N-acetyl(2-

30 aminoethyl)glycine backbone
 (ix) FEATURE:

- (B) LOCATION: 4
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

# (ix) FEATURE:

- 5 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

# (ix) FEATURE:

- 10 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

- 15 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 7
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

- 20 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 8
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

- 25 (A) NAME/KEY: Modified site
  - (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

- 30 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 10
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

# (ix) FEATURE:

35 (A) NAME/KEY: Modified-site

(B) LOCATION: 11



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(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
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(A) NAME/KEY: Modified-site

5

(B) LOCATION: 12

(D) OTHER INFORMATION: N-acetyl (2-

aminoethyl) glycine backbone

(ix) FEATURE:

(A) NAME/KEY: Modified-site

10

(B) LOCATION: 13

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

(A) NAME/KEY: Modified-site

15

(B) LOCATION: 14

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

(A) NAME/KEY: Modified-site

20

(B) LOCATION: 15

(D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-

lysine-glycine

backbone

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GGTCATAGCT GTTTC

- 25 (2) INFORMATION FOR SEQ ID NO: 6:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 15 bases
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
- 30 (D) TOPOLOGY: linear
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 1

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(D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
               (A) NAME/KEY: Modified-site
 5
               (B) LOCATION: 2
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
        (ix) FEATURE:
               (A) NAME/KEY: Modified-site
10
               (B) LOCATION: 3
               (D) OTHER INFORMATION: N-acetyl (2-
    aminoethyl) glycine backbone
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
15
              (B) LOCATION: 4
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
20
              (B) LOCATION: 5
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
25
              (B) LOCATION: 6
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
30
              (B) LOCATION: 7
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
35
              (B) LOCATION: 8
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
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- (A) NAME/KEY: Modified-site
- (B) LOCATION: 9
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 10
- (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl)glycine backbone

#### (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 11
- (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone

# (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 12
- (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 13
- (D) OTHER INFORMATION: N-acetyl (2-
- 25 aminoethyl)glycine backbone

#### (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 14
- (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 15
- (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 35 lysine-glycine

backbone

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

35

# TACTCATACT CTTCC

	(2) INFORMATION FOR SEQ ID NO: 7:
	(I) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 15 bases
5	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: single
	(D) TOPOLOGY: linear
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
10	(B) LOCATION: 1
	(D) OTHER INFORMATION: N-acetyl(2
	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
15	(B) LOCATION: 2
	(D) OTHER INFORMATION: N-acetyl(2
	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
20	(B) LOCATION: 3
	(D) OTHER INFORMATION: N-acetyl(2
	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
25	(B) LOCATION: 4
	(D) OTHER INFORMATION: N-acetyl(2
	aminoethyl)glycine backbone
	(ix) FEATURE:
	(A) NAME/KEY: Modified-site
30	(B) LOCATION: 5
	(D) OTHER INFORMATION: N-acetyl(2
	aminoethyl)glycine backbone
	(ix) FEATURE:
	<ul><li>(A) NAME/KEY: Modified-site</li></ul>

(B) LOCATION: 6,

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(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
```

(A) NAME/KEY: Modified-site

5

(B) LOCATION: 7

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

10

(B) LOCATION: 8

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

15

(B) LOCATION: 9

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

20

(B) LOCATION: 10

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

25

(B) LOCATION: 11

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

30

(B) LOCATION: 12

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

35

(B) LOCATION: 13

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 14
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 10 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

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15

- (2) INFORMATION FOR SEQ ID NO: 8:
  - (I) SEQUENCE CHARACTERISTICS:
- 15 (A) LENGTH: 15 bases
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
  - (ix) FEATURE:
- 20 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 1
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
- 25 (A) NAME/KEY: Modified-site
  - (B) LOCATION: 2
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

30

- (A) NAME/KEY: Modified-site
  - (B) LOCATION: 3
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: N-acetyl(2-

# aminoethyl)glycine backbone

- 5 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-acetyl(2-

# aminoethyl)glycine backbone

- 10 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-acetyl(2-

## aminoethyl)glycine backbone

- 15 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 7
  - (D) OTHER INFORMATION: N-acetyl(2-

# aminoethyl)glycine backbone

- 20 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 8
  - (D) OTHER INFORMATION: N-acetyl(2-

## aminoethyl) glycine backbone

- 25 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acetyl(2-

# aminoethyl)glycine backbone

- 30 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 10
  - (D) OTHER INFORMATION: N-acetyl(2-
  - aminoethyl)glycine backbone
- 35 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 11

5

10

15

20

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(D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 12 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 13 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 14 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 15 (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-

lysine-glycine backbone

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

ACGCCACATC TTCGC

- 25 (2) INFORMATION FOR SEQ ID NO: 9:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 15 bases
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
- 30 (D) TOPOLOGY: linear
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 1

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- 5 (B) LOCATION: 2
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 10 (B) LOCATION: 3
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 15 (B) LOCATION: 4
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 20 (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 25 (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 30 (B) LOCATION: 7
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 35 (B) LOCATION: 8
  - (D) OTHER INFORMATION:  $(0-2-aminoethyl-0'-acetyl-ethyleneglycol)_3$

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 9
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 10
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 11
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 13
    - (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl) glycine backbone
  - //(ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 14
    - (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 35 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

15

35

	(2) INFORMATION FOR SEQ ID NO: 10:		
	(I) SEQUENCE CHARACTERISTICS:		
	(A)	LENGTH: 15 bases	
5	(B)	TYPE: nucleic acid	
	(C)	STRANDEDNESS: single	
	(D)	TOPOLOGY: linear	
	(ix) FEAT	URE:	
•	(A)	NAME/KEY: Modified-site	
10	(B)	LOCATION: 1	
	(D)	OTHER INFORMATION: N-pseudo isocytosine-	
	acetyl(2-amin	oethyl)glycine backbone	
	(ix) FEA	TURE:	
	(A)	NAME/KEY: Modified-site	
15	(B)	LOCATION: 2	
		OTHER INFORMATION: N-acetyl (2-	
		ycine backbone	
	(ix) FEA	TURE:	
	(A)	NAME/KEY: Modified-site	
20	(B)	LOCATION: 3	
		OTHER INFORMATION: N-acetyl (2-	
		ycine backbone	
	(ix) FEA		
		NAME/KEY: Modified-site	
25		LOCATION: 4	
		OTHER INFORMATION: N-acetyl(2-	
		ycine backbone	
	(ix) FEA		
		NAME/KEY: Modified-site	
30		LOCATION: 5	
		OTHER INFORMATION: N-pseudo isocytosine-	
		Dethyl)glycine backbone	
	(ix) FEAT		
	(A)	NAME/KEY: Modified-site	

(B) LOCATION: 6

```
(D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
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(A) NAME/KEY: Modified-site

5

(B) LOCATION: 7

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

10

(B) LOCATION: 8

(D) OTHER INFORMATION: (0-2-aminoethyl-0'-acetyl-ethyleneglycol)<sub>3</sub>

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

15

(B) LOCATION: 9

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

20

(B) LOCATION: 10

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

25

(B) IOCATION: 11

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

30

(B) LOCATION: 12

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

35

(B) LOCATION: 13

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 14
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 10 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

#### NTTTNNTNTC CTTTC

15

- (2) INFORMATION FOR SEQ ID NO: 11:
  - (I) SEQUENCE CHARACTERISTICS:
- 15

- (A) LENGTH: 15 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ix) FEATURE:
- 20

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
- 25

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 2
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
- 30

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 3
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 4

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

5 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

10 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 6

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

15 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 7

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

20 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 8

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

25 ¿(ix) FEATURE:

(A) NAME/KEY: Modified-site .

(B) LOCATION: 9

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

30 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 10

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

35 (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 11

```
(D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
 5
               (B) LOCATION: 12
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
         (ix) FEATURE:
               (A) NAME/KEY: Modified-site
10
               (B) LOCATION: 13
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
15
              (B) LOCATION: 14
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
20
              (B) LOCATION: 15
              (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
    lysine-glycine backbone
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
   CATACTCTTT CTCCT
                                                             15
25
    (2) INFORMATION FOR SEQ ID NO: 12:
         (I) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 25 bases
              (B) TYPE: nucleic acid
              (C) STRANDEDNESS: single
30
              (D) TOPOLOGY: linear
        (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 1
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(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

5

(A) NAME/KEY: Modified-site

(B) LOCATION: 2

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

10 (B) LOCATION: 3

(D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

15 (B) LOCATION: 4

(D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

20 (B) LOCATION: 5

(D) OTHER INFORMATION: N-pseudo isocytosine-acetyl (2-aminoethyl) glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

25 (B) LOCATION: 6

(D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone

# (ix) FEATURE:

(A) NAME/KEY: Modified-site

30 (B) LOCATION: 7

(D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

(A) NAME/KEY: Modified-site

35 (B) LOCATION: 8

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 10
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 11
    - (D) OTHER INFORMATION: N-pseudo isocytosine-
- 15 acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: (0-2-aminoethyl-0'-acetyl-
- 20 ethyleneglycol)<sub>3</sub>
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 13
    - (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 14
    - (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-acety1(2-
- 35 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site

- (B) LOCATION: 16
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

5

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 17
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

10

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 18
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

15

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 19
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

20

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 20
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

(ix) FEATURE:

25

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 21
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

(ix) FEATURE:

30

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 22
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 23

WO 99/13893 PCT/US98/19199

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- (B) LOCATION: 24

5

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 10 (B) LOCATION: 25
  - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-lysine-glycine backbone
    - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

TINTNNNTTT NINTCTITCC GICIT

- 15 (2) INFORMATION FOR SEQ ID NO: 13:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 15 bases
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
- 20 (D) TOPOLOGY: linear
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 1
    - (D) OTHER INFORMATION: N-pseudo isocytosine-
- 25 acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 2
    - (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 3

(D) OTHER INFORMATION: N-pseudo isocytosineacetyl(2-aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 5 (B) LOCATION: 4
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 10 (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 15 (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-pseudo isocytosine-acetyl(2-aminoethyl)glycine backbone
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 20 (B) LOCATION: 7
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 25 (B) LOCATION: 8
  - (D) OTHER INFORMATION:  $(0-2-aminoethyl-0'-acetyl-ethyleneglycol)_3$ 
    - (ix) FEATURE:
      - (A) NAME/KEY: Modified-site
- 30 (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

- (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
- 35 (B) LOCATION: 10
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

	, ,	1	************	
1	[ 7	x`	FEATURE	

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 11
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 13
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 14
    - (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 25 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

NTNTNNTNTC CTCTC

- (2) INFORMATION FOR SEQ ID NO: 14:
  - (I) SEQUENCE CHARACTERISTICS:
- 30 (A) LENGTH: 12 bases
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
  - (ix) FEATURE:

- (A) NAME/KEY: Modified-site(B) LOCATION: 1
- (D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

5 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 2
- (D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

10 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 3
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

15 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

20 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 5
- (D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

25 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 6
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

30 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 7
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

35 (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 8

	(D)	OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)gl	ycine backbone	
	(ix) FEA	TURE:	
	(A)	NAME/KEY: Modified-site	
5	(B)	LOCATION: 9	
	(D)	OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)gl	ycine backbone	
	(ix) FEA	TURE:	
	(A)	NAME/KEY: Modified-site	
10	(B)	LOCATION: 10	•
	(D)	OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)gl	ycine backbone	
	(ix) FEA	TURE:	
	(A)	NAME/KEY: Modified-site	
15	• •	LOCATION: 11	
		OTHER INFORMATION: N-acetyl(2-	
		ycine backbone	
	(ix) FEA		
		NAME/KEY: Modified-site	
20		LOCATION: 12	
		OTHER INFORMATION: N-[acetyl(2-aminoethy	r) ] -G
	lysine-glycin	· ·	
	(X1) SEQU	ENCE DESCRIPTION: SEQ ID NO: 14:	
	CCCCTATTGT CC		12
	COCIATIO		.A. 20
		5	
25	(2) INFORMATI	ON FOR SEQ ID NO: 15:	
		ENCE CHARACTERISTICS:	
		LENGTH: 12 bases	
	(B)	TYPE: nucleic acid	
	(C)	STRANDEDNESS: single	
30		TOPOLOGY: linear	
	(ix) FEAT	URE:	
	(A)	NAME/KEY: Modified-site	
	(B)	LOCATION: 1	

	•	
	(D)	OTHER INFORMATION: N-acetyl(2
	aminoethyl)gl	ycine backbone
	(ix) FEA	TURE:
	(A)	NAME/KEY: Modified-site
5	(B)	LOCATION: 2
	(D)	OTHER INFORMATION: N-acetyl(2-
	aminoethyl)gl	ycine backbone
	(ix) FEA	rure:
	(A)	NAME/KEY: Modified-site
10	(B)	LOCATION: 3
	(D)	OTHER INFORMATION: N-acetyl(2-
	aminoethyl)gl	ycine backbone
	(ix) FEA	TURE:
	(A)	NAME/KEY: Modified-site
15	• •	LOCATION: 4
	(D)	OTHER INFORMATION: N-acetyl (2-
	aminoethyl)gl	ycine backbone
	(ix) FEA	TURE:
	(A)	NAME/KEY: Modified-site
20	• •	LOCATION: 5
	(D)	OTHER INFORMATION: N-acetyl(2-
		ycine backbone
	(ix) FEA	
		NAME/KEY: Modified-site
25	·	LOCATION: 6
		OTHER INFORMATION: N-acetyl (2
		ycine backbone
	(ix) FEA	•
	• •	NAME/KEY: Modified-site
30	• •	LOCATION: 7
		OTHER INFORMATION: N-acetyl(2
	, -	ycine backbone
	(ix) FEA	
		NAME/KEY: Modified-site
35	•	LOCATION: 8
		OTHER INFORMATION: N-acetyl(2
	aminoethyllal	veine backbone

```
(ix) FEATURE:
```

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 9
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 10
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 11
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 20 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

TTCTGCCTTT CT

12

- (2) INFORMATION FOR SEQ ID NO: 16:
  - (I) SEQUENCE CHARACTERISTICS:
- 25

- (A) LENGTH: 8 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ix) FEATURE:
- 30

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

(ix) FEATURE:



```
(A) NAME/KEY: Modified-site
               (B) LOCATION: 2
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
 5
         (ix) FEATURE:
               (A) NAME/KEY: Modified-site
               (B) LOCATION: 3
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
10
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
               (B) LOCATION: 4
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
15
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 5
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
20
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 6
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
        (ix) FEATURE:
25
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 7
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
30
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 8
              (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
   lysine-glycine backbone
35
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
```

CTCGAGGT

5

- (2) INFORMATION FOR SEQ ID NO: 17: (I) SEQUENCE CHARACTERISTICS: (A) LENGTH: 5 bases (B) TYPE: nucleic acid 5 (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 1 (D) OTHER INFORMATION: N-acetyl(2-10 aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 2 (D) OTHER INFORMATION: N-acetyl(2-15 aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 3 20 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 4 25 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 5 (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-30 lysine-glycine backbone (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:
  - TAAAC

(2) INFORMATION FOR SEQ ID NO: 18:

# Ii) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- 5 (D) TOPOLOGY: linear

# (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 2
- (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone

# (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 3
- (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone

# (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl)glycine backbone

# (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 5
- (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 6
- (D) OTHER INFORMATION: N-acetyl(2-
- 35 aminoethyl)glycine backbone

# (ix) FEATURE:

(A) NAME/KEY: Modified-site

```
(B) LOCATION: 7
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
 5
               (A) NAME/KEY: Modified-site
               (B) LOCATION: 8
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
10
               (A) NAME/KEY: Modified-site
              (B) LOCATION: 9
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
15
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 10
              (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
    lysine-glycine backbone
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:
20 AAGGAGGTGA
                                                       10
    (2) INFORMATION FOR SEO ID NO: 19:
```

- (I) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15 bases
  - (B) TYPE: nucleic acid
- 25 (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 1
- 30 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 2

(D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

# (ix) FEATURE:

(A) NAME/KEY: Modified-site

5

- (B) LOCATION: 3
- (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

# (ix) FEATURE:

(A) NAME/KEY: Modified-site

10

- (B) LOCATION: 4
- (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

- . (A) NAME/KEY: Modified-site
- 15 (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

#### (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- 20 (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

(A) NAME/KEY: Modified-site

25

- (B) LOCATION: 7
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

# (ix) FEATURE:

(A) NAME/KEY: Modified-site

30

- (B) LOCATION: 8
- (D) OTHER INFORMATION: (0-2-aminoethyl-O'-acetyl-ethyleneglycol) $_3$

# ix) FEATURE:

- (A) NAME/KEY: Modified-site
- 35 (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 10
- (D) OTHER INFORMATION: N-acety1(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 11
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 13
    - (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 14
    - (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 30 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

TCTCTTINTT TCTCT

- (2) INFORMATION FOR SEQ ID NO: 20:
  - (I) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- 5 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 1
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 10 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 2
  - (D) OTHER INFORMATION: N-pseudo isocytosine-

acetyl(2-aminoethyl)glycine backbone

- 15 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 3
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 20 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 4
  - (D) OTHER INFORMATION: N-pseudo isocytosine-

acetyl(2-aminoethyl)glycine backbone

- 25 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 5
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 30 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 6
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

- 35 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 7

```
(D) OTHER INFORMATION: N-acetyl(2-
     aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
  5
                (B) LOCATION: 8
                (D) OTHER INFORMATION: (O-2-aminoethyl-O'-acetyl-
     ethylene glycol)<sub>3</sub>
         (ix) FEATURE:
                (A) NAME/KEY: Modified-site
 10
                (B) LOCATION: 9
               (D) OTHER INFORMATION: N-acetyl(2-
     aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
 15
               (B) LOCATION: 10
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
20
               (B) LOCATION: 11
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
25 .
               (B) LOCATION: 12
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
30
              (B) LOCATION: 13
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
35
              (B) LOCATION: 14
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
```

```
(ix) FEATURE:
               (A) NAME/KEY: Modified-site
               (B) LOCATION: 15
               (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
 5 lysine-glycine backbone
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:
    TNTNTTTNTT TCTCT
    (2) INFORMATION FOR SEQ ID NO: 21:
         (I) SEQUENCE CHARACTERISTICS:
10
               (A) LENGTH: 15 bases
              (B) TYPE: nucleic acid
              (C) STRANDEDNESS: single
              (D) TOPOLOGY: linear
        (ix) FEATURE:
15
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 1
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
20
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 2
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
       ix) FEATURE:
25
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 3
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
30
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 4
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
35
              (A) NAME/KEY: Modified-site
```

(B) LOCATION: 5 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 5 (A) NAME/KEY: Modified-site (B) LOCATION: 6 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 10 (A) NAME/KEY: Modified-site (B) LOCATION: 7 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 15 (A) NAME/KEY: Modified-site (B) LOCATION: 8 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 20 (A) NAME/KEY: Modified-site (B) LOCATION: 9 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 25 (A) NAME/KEY: Modified-site (B) LOCATION: 10 / (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: 30 (A) NAME/KEY: Modified-site (B) LOCATION: 11 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 12

```
(D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
 5
               (B) LOCATION: 13
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl) glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
10
               (B) LOCATION: 14
               (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
               (A) NAME/KEY: Modified-site
15
               (B) LOCATION: 15
               (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
    lysine-glycine backbone
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:
    AGGTGTCAGC GAACG
                                                             15
20 (2) INFORMATION FOR SEQ ID NO: 22:
         (I) SEQUENCE CHARACTERISTICS:
               (A) LENGTH: 15 bases
               (B) TYPE: nucleic acid
               (C) STRANDEDNESS: single
25
               (D) TOPOLOGY: linear
        (ix) FEATURE:
               (A) NAME/KEY: Modified-site
              (B) LOCATION: 1
               (D) OTHER INFORMATION: N-acetyl (2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 2
              (D) OTHER INFORMATION: N-acetyl(2-
35 aminoethyl)glycine backbone
```

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 3
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 4
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 5
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 6
    - (D) OTHER INFORMATION: N-acetyl(2-
- 20 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 7
    - (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 8
    - (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 9
    - (D) OTHER INFORMATION: N-acetyl(2-
- 35 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site

- (B) LOCATION: 10 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 5 (A) NAME/KEY: Modified-site (B) LOCATION: 11 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 10 (B) LOCATION: 12 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 15 (A) NAME/KEY: Modified-site (B) LOCATION: 13 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 20 (A) NAME/KEY: Modified-site (B) LOCATION: 14 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: 25 (A) NAME/KEY: Modified-site (B) LOCATION: 15 (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-Clysine-glycine backbone (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22: 30 CTTTGTCGAT ACTGG 15 (2) INFORMATION FOR SEQ ID NO: 23:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 14 bases
    - (B) TYPE: nucleic acid
- 35 (C) STRANDEDNESS: single

()

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(D) TOPOLOGY: linear

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- 5 (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 2
- 10 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 3
- 15 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 4
- 20 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 5
- 25 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 6
- 30 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 7
- 35 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:

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- (A) NAME/KEY: Modified-site
- (B) LOCATION: 8
- (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 5 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 9
  - (D) OTHER INFORMATION: N-acety1(2-

aminoethyl)glycine backbone

- 10 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 10
  - (D) OTHER INFORMATION: N-acetyl (2-

aminoethyl)glycine backbone

- 15 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 11
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 20 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 12
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 25 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 13
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

- 30 (ix) FEATURE:
  - (A) NAME/KEY: Modified-site
  - (B) LOCATION: 14
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

GTCATAGCTG TTTC

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- (2) INFORMATION FOR SEQ ID NO: 24:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 bases
    - (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
  - (ix) FEATURE:

5

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- 10 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 2
- 15 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 3
- 20 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 4
- 25 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 5
- 30 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 6
- 35 (D) OTHER INFORMATION: N-acetyl(2-aminoethyl)glycine backbone
  - (ix) FEATURE:

	(A) NAME/KEY: Modified-site	
	(B) LOCATION: 7	
	(D) OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)glycine backbone	
5	(ix) FEATURE:	
*	(A) NAME/KEY: Modified-site	
	(B) LOCATION: 8	
	(D) OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)glycine backbone	
10	(ix) FEATURE:	
	(A) NAME/KEY: Modified-site	
	(B) LOCATION: 9	
	(D) OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)glycine backbone	
15	(ix) FEATURE:	
	(A) NAME/KEY: Modified-site	
	(B) LOCATION: 10	
	(D) OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)glycine backbone	
20	(ix) FEATURE:	
	(A) NAME/KEY: Modified-site	
	(B) LOCATION: 11	
	(D) OTHER INFORMATION: N-acetyl(2-	
	aminoethyl)glycine backbone	
25	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:	
	CATAGCTGTT C	11
	(2) INFORMATION FOR SEQ ID NO: 25:	
	(I) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 10 bases	
30	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: single	
	(D) TOPOLOGY: linear	
	(ix) FEATURE:	
<b>.</b> -	(A) NAME/KEY: Modified-site	
35	(B) LOCATION: 1	

(D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 5 (B) LOCATION: 2 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site (B) LOCATION: 3 10 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 15 (B) LOCATION: 4 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 20 (B) LOCATION: 5 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 25 (B) LOCATION: 6 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 30 (B) LOCATION: 7 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 35 (B) LOCATION: 8

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

35

```
(ix) FEATURE:
               (A) NAME/KEY: Modified-site
               (B) LOCATION: 9
               (D) OTHER INFORMATION: N-acetyl(2-
 5 aminoethyl)glycine backbone
          (ix) FEATURE:
               (A) NAME/KEY: Modified-site
               (B) LOCATION: 10
               (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:
    TAGCTGTTTC
    (2) INFORMATION FOR SEQ ID NO: 26:
         (I) SEQUENCE CHARACTERISTICS:
15
               (A) LENGTH: 8 bases
              (B) TYPE: nucleic acid
              (C) STRANDEDNESS: single
              (D) TOPOLOGY: linear
        (ix) FEATURE:
20
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 1
              (D) OTHER INFORMATION: N-acetyl (2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
25
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 2
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
30
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 3
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
```

(A) NAME/KEY: Modified-site

- WO 99/13893 (B) LOCATION: 4 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: (A) NAME/KEY: Modified-site 5 (B) LOCATION: 5 (D) OTHER INFORMATION: N-acetyl(2aminoethyl)glycine backbone (ix) FEATURE: 10 (A) NAME/KEY: Modified-site (B) LOCATION: 6 (D) OTHER INFORMATION: N-acetyl(2aminoethyl) glycine backbone (ix) FEATURE: 15
  - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 7
  - (D) OTHER INFORMATION: N-acetyl(2-

aminoethyl) glycine backbone

(ix) FEATURE:

20 (A) NAME/KEY: Modified-site

(B) LOCATION: 8

(D) OTHER INFORMATION: N-acetyl(2-

aminoethyl)glycine backbone

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

25 GCTGTTTC

- (2) INFORMATION FOR SEQ ID NO: 27:
  - (I) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 15 bases
    - (B) TYPE: nucleic acid
- 30 (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 1

```
(D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
 5
              (B) LOCATION: 2
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
10
              (B) LOCATION: 3
              (D) OTHER INFORMATION: N-acetyl(2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
15
              (B) LOCATION: 4
              (D) OTHER INFORMATION: N-acetyl (2-
    aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
              (B) LOCATION: 5
20
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
25
              (B) LOCATION: 6
              (D) OTHER INFORMATION: N-acetyl (2-
   aminoethyl) glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
30
              (B) LOCATION: 7
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
         (ix) FEATURE:
              (A) NAME/KEY: Modified-site
35
              (B) LOCATION: 8
              (D) OTHER INFORMATION: N-acetyl(2-
   aminoethyl)glycine backbone
```



## (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 9
- (D) OTHER INFORMATION: N-acetyl(2-
- 5 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 10
    - (D) OTHER INFORMATION: N-acetyl(2-
- 10 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 11
    - (D) OTHER INFORMATION: N-acetyl(2-
- 15 aminoethyl) glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 12
    - (D) OTHER INFORMATION: N-acety1(2-
- 20 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 13
    - (D) OTHER INFORMATION: N-acetyl(2-
- 25 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 14 ?
    - (D) OTHER INFORMATION: N-acetyl(2-
- 30 aminoethyl)glycine backbone
  - (ix) FEATURE:
    - (A) NAME/KEY: Modified-site
    - (B) LOCATION: 15
    - (D) OTHER INFORMATION: N-[acetyl(2-aminoethyl)]-C-
- 35 lysine-glycine backbone
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

ACATTCACCA CCCTG

15